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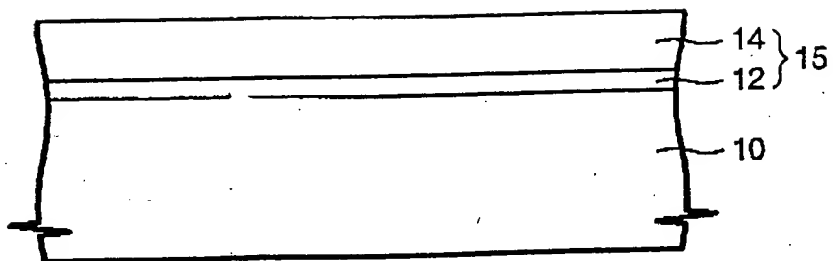


Fig. 1A

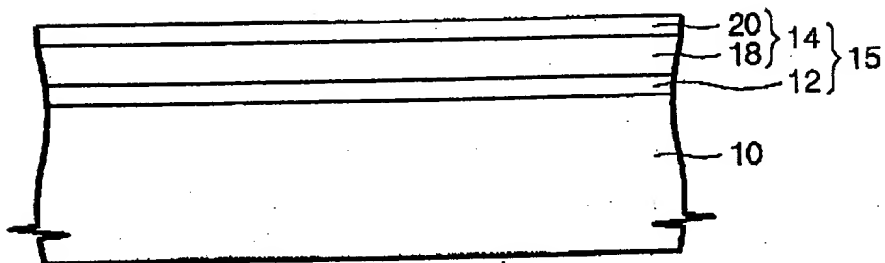


Fig. 1B

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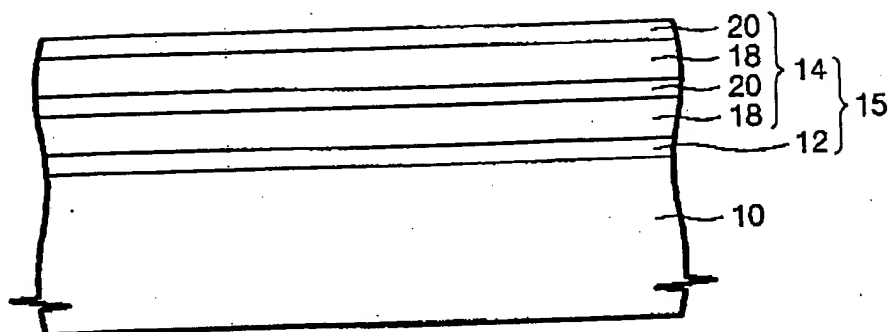


Fig. 1C

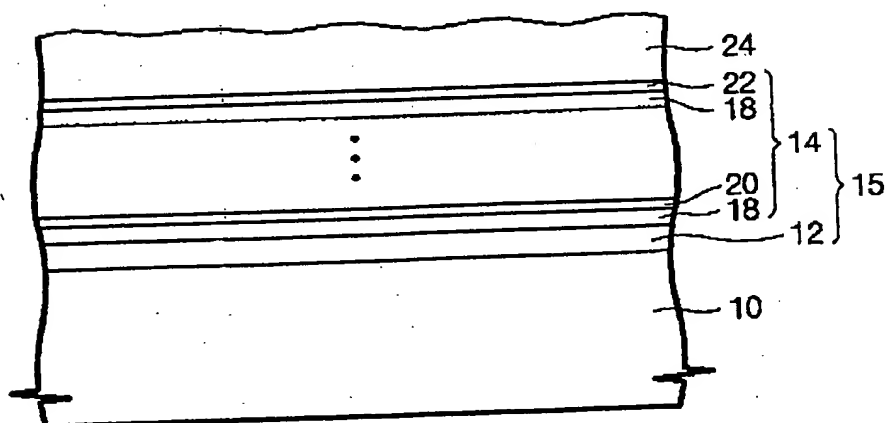
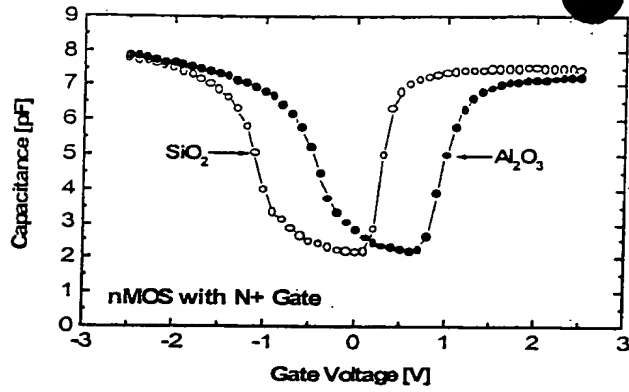
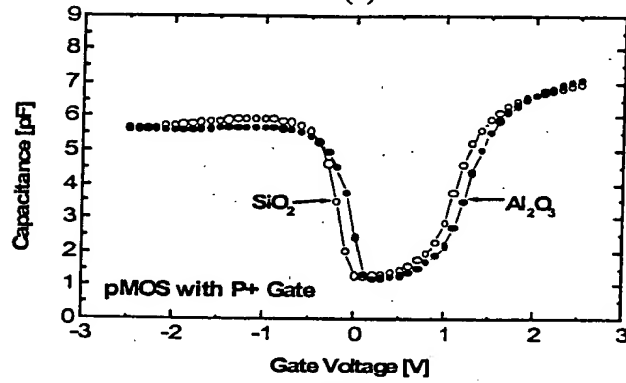


Fig. 2

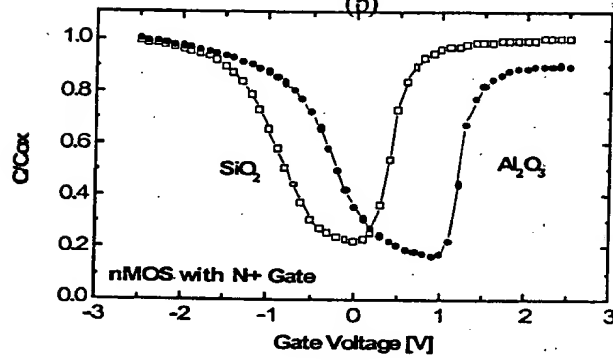
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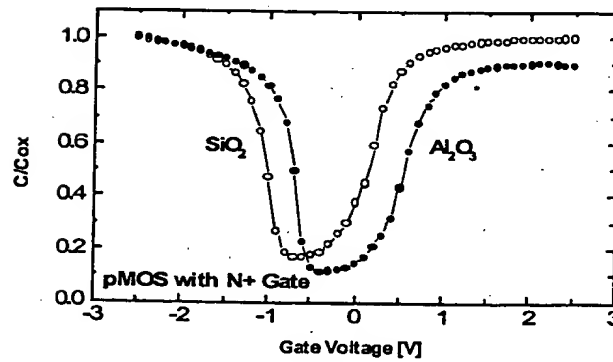
(a)



(b)



(c)



(d)

Al₂O₃ MOS Capacitor C-V Curves

(a) n+Poly-Si/ Al₂O₃ or SiO₂/ p-Si (b) p+Poly-Si/
Al₂O₃ or SiO₂/ n-Si (c) n+Poly-Si/ Al₂O₃ or
SiO₂/ p-Si (d) n+Poly-Si/ Al₂O₃ or SiO₂/ n-Si

FIG. 3

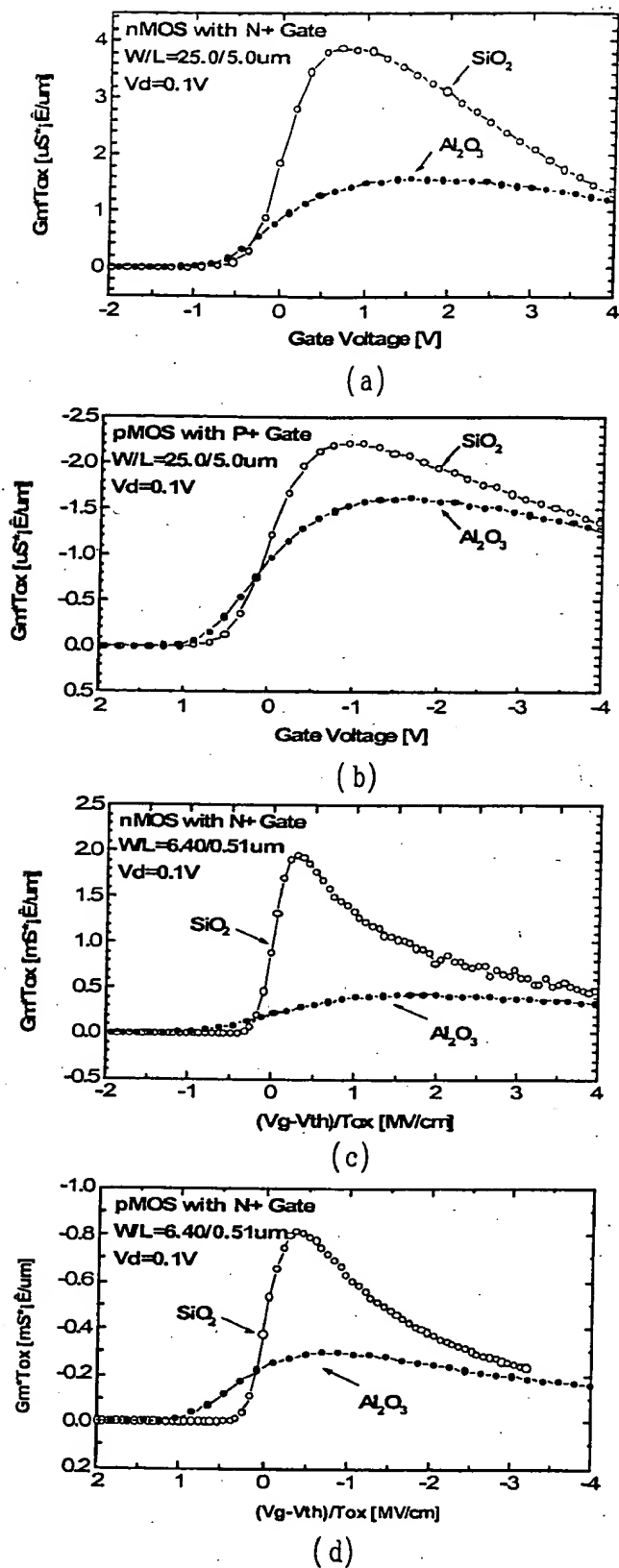
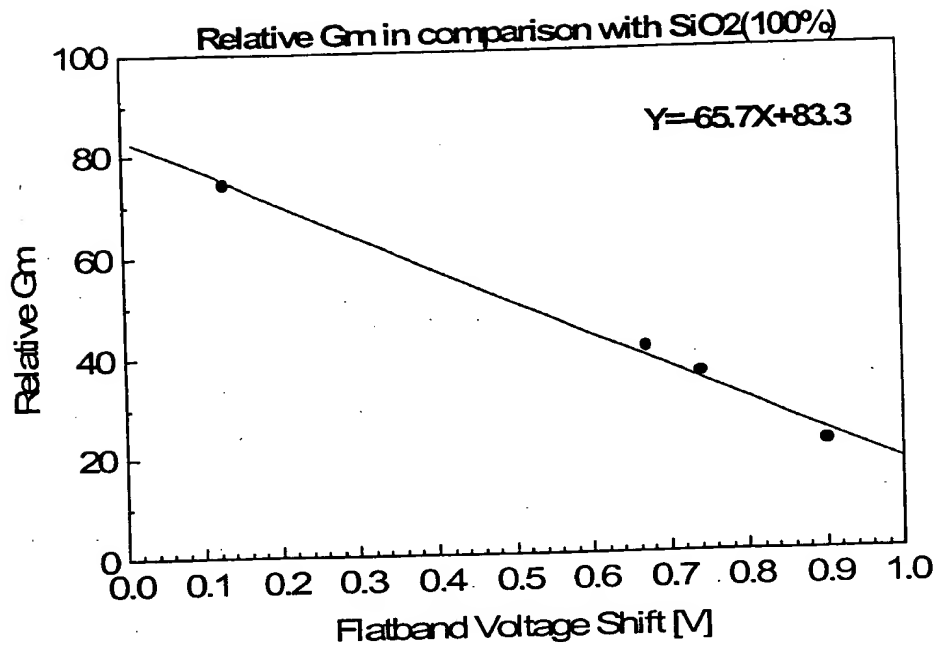


FIG. 4

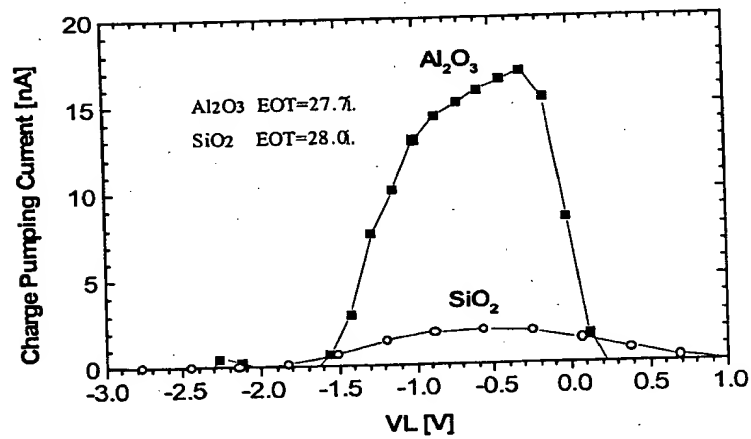
- Gm(Normalized Transconductance) vs. V_g
- (a) N+Gate nMOS
 - (b) P+Gate pMOS
 - (c) In-situ Doped N+Gate nMOS
 - (d) In-situ Doped N+Gate pMOS

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Flatband Voltage Shift vs. Relative Gm of Al₂O₃ to SiO₂

FIG. 5



Gate Base Level VL vs. Charge Pumping Current I_{cp}

FIG. 6

FIG. 7